

Patent Abstracts of Japan

PUBLICATION NUMBER : 09245941
PUBLICATION DATE : 19-09-97

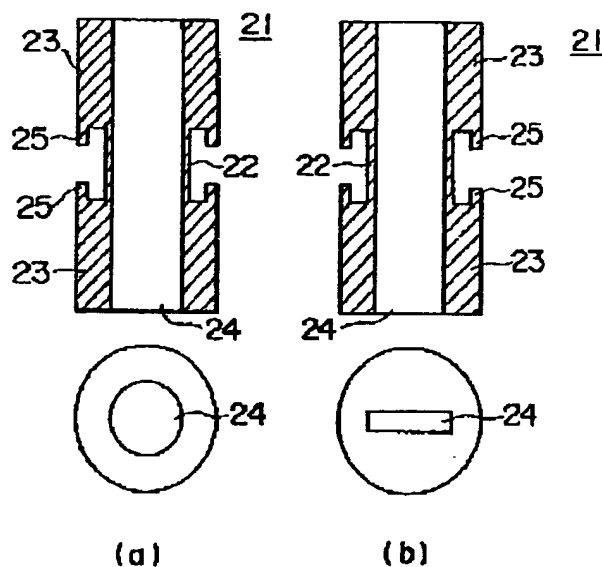
APPLICATION DATE : 07-03-96
APPLICATION NUMBER : 08050059

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INT.CL. : H05B 3/14

TITLE : HEATING SUBSTANCE OF ZIRCONIA



ABSTRACT : PROBLEM TO BE SOLVED: To make constant the internal temp. distribution and prolong the lifetime by shaping the end face of a terminal part of a heating element for a high temp. furnace in such a way as enclosing a part of a temp. running part, and suppressing heat radiation from the heat running part.

SOLUTION: A heating part 22 having circular section and terminal parts 23 are made of ZrO_2 material manufactured from zirconia fiber, etc., in a single piece structure where a circular hollow part 24 penetrates the inside so that a heating element 21 is formed. A lead of platinum is attached to each terminal part 23 and current is fed so that a temp. of 2000-2300°C is generated in the hollow 24, and thereby a sample or a material to be treated is heated. A flange 25 enclosing a part of the heating part 22 is furnished on the periphery of that end face of the terminal part 23 which lies on the side with the heating part 22. The length of the flange 24 should be 20-95% of the heating part 22 while the inside diameter should be 6mm or more greater than the outside diameter of the part 22. Thereby heat radiation from the part 22 is shut off, and dispersion of the internal temp. distribution is lessened.

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